Amendments to the Specification

Please delete the following paragraphs beginning on page 15 lines 16 through 19.

~~Figure 6c is a side cross-sectional view of an expandable intervertebral implant, featuring retaining pegs.~~

~~Figure 6d is a side cross-sectional view of an expandable intervertebral implant in flexion, featuring retaining pegs.~~

Please replace the paragraph beginning on page 9, line 1 with the following amended paragraph:

In more detail, the expandable artificial implant of the present invention comprises four parts: an upper body, a lower body, an expandable joint ~~insert, that~~insert that fits into the lower body, and an expansion device, which may be an expansion plate, screw, or other similar device. The upper body generally comprises a substantially concave inferior surface and a substantially planar superior surface. The substantially planar superior surface of the upper body may have some degree of convexity to promote the joining of the upper body to the intact endplates of the natural intervertebral disc upon compression. The lower body generally comprises a recessed channel, having a rectangular ~~cross-section~~cross section, which extends along the superior surface of the lower body in the medial-lateral direction and substantially conforms to the shape of the upper and lower bodies. The lower body further comprises a substantially planar inferior surface that may have some degree of convexity to promote the joining of the lower body to the intact endplates of the natural intervertebral disc upon compression. The expandable joint insert resides within the channel on the superior surface of the lower body. The expandable joint insert has a generally flat inferior surface and a substantially convex superior surface that articulates with the substantially concave inferior surface of the upper body. Prior to expansion of the artificial implant, the generally flat inferior surface of the expandable joint insert rests on the bottom surface of the channel. The expandable joint insert is raised above the bottom of the channel by means of an expansion screw, an expansion plate, or other similar device, that is inserted through an expansion hole or slot. The expansion hole or slot is disposed through the wall of the lower body formed by the channel. The expansion hole or slot gives access to the lower surface of the channel and is positioned such that the expansion device can be inserted into

the expansion hole or slot via a posterior surgical approach. As the expansion device is inserted through the expansion slot, into the channel, and under the expandable joint insert, the expandable joint insert is raised above the floor of the channel and lifts the upper body above the lower body to the desired disc height. The distance from the inferior surface of the lower body and the superior surface of the upper body should be equal to the ideal distraction height of the disk space. As the artificial implant is flexed and extended, the convex superior surface of the expandable joint insert articulates with the concave inferior surface of the upper body.

Please replace the paragraph beginning on page 19, line 10 with the following amended paragraph:

The expandable artificial intervertebral implant 10 generally comprises an upper body 12 and a lower body 14 in a substantially parallel planar configuration. The superior surface 2 of the upper body 12 and the inferior surface 4 of the lower body 14 comprise a machined osteoconductive scaffolding 13 through which the bone may ultimately grow. Osteoconductive scaffolding 13 may also include spines or barbs that project into and secure against the bony endplates of the adjacent bony vertebral bodies upon expansion of the joint and minimize the possibility of sublaxation and/or dislocation. The upper body 12 has a substantially concave inferior surface 16. The lower body 14 has a channel 15 in superior surface 17. Channel 15 preferably has a rectangular cross-section that extends along the lower body 14 in the medial-lateral direction and substantially conforms to the shape of the upper 12 and lower 14 bodies. An expandable joint insert 19 resides within the channel 15 on the lower body. The expandable joint insert 19 has a generally flat inferior surface 20 and a substantially convex superior surface 21 that articulates with the substantially concave inferior surface 16 of the upper body 12. The expandable joint insert 19 is lifted from the bottom of channel 15 by means of an expansion ~~screw 21~~screw 22, or other device, that is inserted between the generally flat inferior surface 20 of the expandable joint insert 19 and the bottom of the channel 15 extending along the lower body 14 through an expansion slot 18. A void space is created between the expandable joint insert 19 and the floor of the channel 15 in cross sections not including the expansion device. A securing means, such as the cables 25, may be employed to ensure the upper body 12 and the lower body 14 remain intact during flexion and extension of the FSU. Alternative means for securing the upper body 12 and lower body 14 may also be employed, such as retaining pegs,

torsion springs, or similar devices.

Please delete the paragraph beginning on page 22, line 9.

~~Figures 6c and 6d illustrate another preferred embodiment of an expandable intervertebral implant featuring retaining pegs 91 to ensure against dislocation of upper body 83 from lower body 84 during flexion, extension and torsional motion. A plurality of retaining pegs 91 project substantially upward form from the superior surface of lower body 84. On its' the inferior surface, upper body 83 comprises a plurality of holes, or containment wells 90, dimensionally larger than captive pegs 91 and arranged such that when upper body 83 is properly positioned upon lower body 84, captive pegs 91 are housed within containment wells 90. As shown in Figure 6d, when the intervertebral implant is flexed or extended, captive pegs 91 prohibit dislocation of upper body 83 from lower body 84. While the pegs and containment wells may be any shape, captive pegs 91 are preferably round and containment wells 90 are preferably oval in shape, which gives limited torsional mobility as well.~~

Please replace the paragraph beginning on page 24, line 20 with the following amended paragraph:

Figures 12d and 12e show a TLIF cage similar to the PLIF cage described above. The primary difference between the ~~TLIP~~ TLIF cage and the PLIF cage is that the TLIF cage comprises a t-shaped cross-sectional osteoconductive mesh structure 310 secured upon the superior surface 309 of the planar plate member 307 of the internal expandable element 302 such that the osteoconductive mesh structure 310 overhangs the superior surface 306 of the external cage element 301. Thus providing more surface area between the osteoconductive mesh structure 310 and the bony endplates within the intervertebral space.

Please replace the paragraph beginning on page 25, line 6 with the following amended paragraph:

Expandable cages may also be expanded in two dimensions as illustrated in ~~Figure 12 h~~ Figure 12i. Cage element 301 may further comprise an expansion window 320 through its inferior surface and a second internal expandable element 321. As expansion plate 312 is

impacted into the device, both internal expandable elements 302, 321 are pushed through their respective expansion windows 305, 320.